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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,896	02/06/2004	Scott E. Hrastar	4706	8599

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CLEMENTS WALKER
1901 ROXBOROUGH ROAD
SUITE 300
CHARLOTTE, NC 28211

EXAMINER

TRAN, TUNG Q

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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11/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/773,896</p>	<p>Applicant(s)</p> <p align="center">HRASTAR, SCOTT E.</p>	
	<p>Examiner</p> <p align="center">Tung Q. Tran</p>	<p>Art Unit</p> <p align="center">2616</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 14 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 11-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____</p> |
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DETAILED ACTION

Amendment

1. The Amendment filed on September 14, 2007 amends claims 1, 7, 15-16, 18 and cancels claims 11-14. The Amendment has been acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10, 17, and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent Application Publication No. 2004/0235453) in view of Patel et al. (US Patent No. 6,865,185) and further in view of Burton et al. (US Patent Application Publication No. 2004/0171347).

Chen discloses an access point incorporating a function of monitoring illegal wireless communications (see the Title) comprising the following features.

Regarding claim 1, a method of monitoring a wireless network (see the Abstract), the method comprising the steps of: (a) receiving a data unit from a wireless node (Fig. 1, RF Receiver 10 and 20); (b) buffering the received data unit (Fig. 1, Buffer 16 and 26); and (c) transmitting the received or buffered data unit to a monitoring processor (Fig. 1, CPU 30); (d) repeating steps (a) through (c) for a plurality of wireless nodes (Fig. 1).

Regarding claim 17, further comprising the step of repeating steps (a) through (c) for a plurality of received data units from the wireless node (Fig. 1).

Regarding claim 19, wherein the transmitting step occurs at a time based upon whether the bandwidth constraint is satisfied (Fig. 1).

Regarding claim 20, wherein the transmitting step comprises immediately transmitting the received data unit if the bandwidth constraint is not satisfied (Fig. 1).

Regarding claim 22, one or more computer readable media storing instruction that upon execution by a system processor cause the system processor to monitor a wireless network by performing the methods of claims 1 (see "software process" and "programmable" recited in para. [0027-0028] on page 2).

Regarding claim 23, a system of monitoring a wireless network (see the Abstract), the system comprising: (a) a system data store (SDS) comprising capable of storing wireless data transmitted by a plurality of wireless nodes (Fig. 1, Buffer 16 and 26); (b) a wireless receiver capable of receiving one or more data units from the plurality of wireless nodes (Fig. 1, RF Receiver 10 and 20); (c) a communication interface allowing communication with a monitoring processor (Fig. 1); and (d) a system processor in communication with the SDS, the wireless receiver and the communication interface (Fig. 1), wherein the system processor comprises one or more processing elements configured to: (i) receive a data unit from the wireless receiver in response to receipt of the data unit by the wireless receiver from a wireless node of the plurality of wireless nodes (Fig. 1, RF Receiver 10 and 20); (ii) buffer the received data unit in the SDS (Fig. 1, Buffer 16 and 26); (iii) immediately transmit the received data unit to the

monitoring processor via the communication interface if the bandwidth constraint is not satisfied (Fig. 1); (iv) repeat steps (i) through (iii) for a plurality of received data units (Fig. 1).

Regarding claim 24, a system of monitoring a wireless network (see the Abstract), the system comprising: (a) receiving means for receiving a data unit from a wireless node (Fig. 1, RF Receiver 10 and 20); (b) buffer means for deterministically accepting for buffering a received data unit from the receiving means (Fig. 1, Buffer 16 and 26); and (c) output means for immediately transmitting a received data unit to a monitoring processor if the bandwidth constraint is not satisfied (Fig. 1).

Chen does not disclose the following features: regarding claim 1, wherein a bandwidth constraint is satisfied; and deterministically selecting the wireless node from the plurality of wireless nodes for a given repetition; regarding claim 2, further comprising the steps of receiving the bandwidth constraint; regarding claim 3, wherein the bandwidth constraint is received from a local data store, a wired network node, a wireless network node, an access point or a sensor; regarding claim 4, further comprising the step of requesting the bandwidth constraint; regarding claim 5, further comprising the step of determining the bandwidth constraint; regarding claim 6, wherein the step of determining the bandwidth constraint is based at least in part upon local data, data received from a wired network node, data received from a wireless network node, data received from an access point, data received from a sensor or combinations thereof; regarding claim 7, further comprising a step of downsampling when the bandwidth constraint is satisfied; regarding claim 8, wherein the step of downsampling

occurs when a local storage constraint is satisfied; regarding claim 9, wherein the step of downsampling only occurs when the local storage constraint is satisfied; regarding claim 10, wherein the step of downsampling comprises one or more steps selected from the group consisting of: (i) discarding the received data unit if it is redundant with a previously buffered data unit; (ii) aggregating the received data unit with a previously buffered data unit; (iii) discarding the received data unit if it comprises network control data; (iv) discarding the received data unit if it is associated with a device that has already been observed more frequently than other devices; and (v) discarding the received data unit if the wireless node is determined to be a low threat node; regarding claim 21, wherein the transmitting step further comprises transmitting the buffered data unit at a point in time when the bandwidth constraint is not satisfied; regarding claim 23, wherein a bandwidth constraint is satisfied; wherein the wireless node of the plurality of wireless nodes is deterministically selected for a given repetition; discard the received data unit if the bandwidth constraint is satisfied, if a local storage constraint has been satisfied and if the received data unit is redundant with a previously buffered data unit, comprises network control data, is associated with a device that has already been observed more frequently than other devices or originates from a low threat wireless node; aggregate the received data unit with a previously buffered data unit if the bandwidth constraint is satisfied and if the received data unit is compatible with the previously buffered data unit; and transmit a selected buffered data unit to the monitoring process via the communication interface at a point in time after receipt based upon the bandwidth constraint and bandwidth usage; regarding claim 24, wherein a

bandwidth constraint is satisfied; aggregating the deterministically accepted data unit with a previously buffered data unit if the deterministically accepted data unit is compatible with the previously buffered data unit, discarding the deterministically accepted data unit if a storage constraint is satisfied and if the deterministically accepted data unit is redundant with a previously buffered data unit, comprises network control data, is associated with a device that has already been observed more frequently than other devices or originates from a low threat wireless node; and for transmitting a buffered data unit to the monitoring processor at a point in time after receipt based upon the bandwidth constraint and bandwidth usage.

Patel discloses a method and system for queuing traffic in a wireless communications network comprising the following features.

Regarding claim 1, where a bandwidth constraint is satisfied (see "only those packets which satisfy the bandwidth constraint" pass through recited in col. 18, lines 21-23).

Regarding claim 2, further comprising the steps of receiving the bandwidth constraint (see "bandwidth estimator" recited in col. 9, lines 5-17).

Regarding claim 3, wherein the bandwidth constraint (see "bandwidth estimator" recited in col. 9, lines 5-17) is received from a wired network node (Fig. 2, mobile gateway 20).

Regarding claim 4, further comprising the step of requesting the bandwidth constraint (Fig. 17, step 280-282).

Regarding claim 5, further comprising the step of determining the bandwidth constraint (Fig. 17, step 280-282).

Regarding claim 6, wherein the step of determining the bandwidth constraint (Fig. 17, step 280-282) is based at least in part upon data received from a wired network node (Fig. 2, mobile gateway 20).

Regarding claim 7, further comprising a step of downsampling when the bandwidth constraint is satisfied (Fig. 17, step 290; and "flows are aggregated" in col. 3, lines 17-20).

Regarding claim 8, wherein the step of downsampling (see "drops" recited in col. 19, line 55) occurs when a local storage constraint is satisfied (see "minimum threshold" and "maximum threshold" recited in col. 19, lines 55-60).

Regarding claim 9, wherein the step of downsampling (see "drops" recited in col. 19, line 55) only occurs when the local storage constraint is satisfied (see "minimum threshold" and "maximum threshold" recited in col. 19, lines 55-60).

Regarding claim 10, wherein the step of downsampling (see "drops" recited in col. 19, line 55) comprises one or more steps selected from the group consisting of: discarding the received data unit if it is redundant with a previously buffered data unit (see "minimum threshold" and "maximum threshold" recited in col. 19, lines 55-60).

Regarding claim 21, wherein the transmitting step further comprises transmitting the buffered data unit at a point in time when the bandwidth constraint is not satisfied (see "will be the first to be checked out" recited in col. 18, lines 21-33).

Regarding claim 23, wherein a bandwidth constraint is satisfied (see “only those packets which satisfy the bandwidth constraint” pass through recited in col. 18, lines 21-23); discard the received data unit if the bandwidth constraint is satisfied (see “drops” recited in col. 19, line 55), if a local storage constraint has been satisfied and if the received data unit is redundant with a previously buffered data unit (see “minimum threshold” and “maximum threshold” recited in col. 19, lines 55-60); aggregate the received data unit with a previously buffered data unit if the bandwidth constraint is satisfied and if the received data unit is compatible with the previously buffered data unit (“flows are aggregated” in col. 3, lines 17-20); and transmit a selected buffered data unit to the monitoring process via the communication interface at a point in time after receipt based upon the bandwidth constraint and bandwidth usage (see “will be the first to be checked out” recited in col. 18, lines 21-33).

Regarding claim 24, wherein a bandwidth constraint is satisfied (see “only those packets which satisfy the bandwidth constraint” pass through recited in col. 18, lines 21-23); aggregating the deterministically accepted data unit with a previously buffered data unit if the deterministically accepted data unit is compatible with the previously buffered data unit (“flows are aggregated” in col. 3, lines 17-20), discarding the deterministically accepted data unit (see “drops” recited in col. 19, line 55) if a storage constraint is satisfied and if the deterministically accepted data unit is redundant with a previously buffered data unit (see “minimum threshold” and “maximum threshold” recited in col. 19, lines 55-60); and for transmitting a buffered data unit to the monitoring processor at a

point in time after receipt based upon the bandwidth constraint and bandwidth usage (see "will be the first to be checked out" recited in col. 18, lines 21-33).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Chen by using the features, as taught by Patel, in order to prevent or reduce congestion and control the flow of data traffic.

Chen and Patel disclose claimed limitations above. Chen and Patel do not disclose the following features: regarding claim 1, deterministically selecting the wireless node from the plurality of wireless nodes for a given repetition; regarding claim 23, wherein the wireless node of the plurality of wireless nodes is deterministically selected for a given repetition.

Burton discloses a method and system for sending signals over a network with mobile nodes (see the Title) comprising the following features.

Regarding claim 1, deterministically selecting the wireless node from the plurality of wireless nodes for a given repetition (see choosing among nodes recited in para. [0057] on page 4).

Regarding claim 23, wherein the wireless node of the plurality of wireless nodes is deterministically selected for a given repetition (see choosing among nodes recited in para. [0057] on page 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Chen and Patel by using the features, as taught by Burton, in order to enable the system scan faster.

4. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent Application Publication No. 2004/0235453) in view of Patel et al. (US Patent No. 6,865,185) and further in view of Burton et al. (US. Patent Application Publication No. 2004/0171347) and Rajkumar et al. (US. Patent Application Publication No. 2004/0264454).

Chen, Patel, and Burton disclose claimed limitations in paragraph 3 above. Chen, Patel, and Burton do not disclose the following features: regarding claim 16, wherein the transmitting step occurs at a rate determined based upon the bandwidth constraint and current bandwidth usage; regarding claim 18, wherein the transmitting step occurs at a rate determined based upon the bandwidth constraint and current bandwidth usage.

Rajkumar discloses a method and equipment to transmit and receive time delay-intolerant information over a communication system (see the Abstract) comprising the following features.

Regarding claim 16, wherein the transmitting step occurs at a rate determined based upon the bandwidth constraint and current bandwidth usage (see "data rate" recited in para. [0008] on page 1).

Regarding claim 18, wherein the transmitting step occurs at a rate determined based upon the bandwidth constraint and current bandwidth usage (see "data rate" recited in para. [0008] on page 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Chen, Patel, and Burton by using the features, as

taught by Kajkumar, in order to prevent or reduce congestion and control the flow of data traffic.

Allowable Subject Matter

5. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's remarks filed September 14, 2007 on amending claims 1, 23, and 24 to include the allowable limitations of dependent claims 11, 12, 14, and 15 have been fully considered but they are not persuasive. In the previous Office Action, only claims 14 and 15 were considered as allowable subject matter if written in independent form but claims 11 and 12 are not. The Applicant just amended claims 1 and 23 to include the limitations of claims 11 and 12.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Q. Tran whose telephone number is (571) 272-9737. The examiner can normally be reached on Mon-Fri: 7:30 am - 5 pm, off alternative Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang B. Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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TQT

KWANG BIN YAO
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Kwang Bin Yao', is written over the printed name and title.